IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): An X-ray diagnostic apparatus comprising:

a memory which stores a plurality of images, wherein the plurality of images are images acquired in a plurality of projection directions by rotation around an object to be examined;

a designating section which designates a region of interest on at least one of the plurality of images acquired in a predetermined projection direction on the basis of an input from an operator;

a position estimating section which estimates corresponding areas in each projection direction, which correspond to the region of interest in each projection direction, on the remaining images of the plurality of images;

a transformation section which transforms the plurality of images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which after transformation by said transformation section sequentially displays the transformed images with display positions thereof adjusted such that an operator is free from moving an eyepoint to observe the transformed images.

Claim 2 (Canceled).

Claim 3 (Original): The apparatus according to claim 1, wherein the corresponding region on each of the remaining images is determined on the basis of at least one of the designated region of interest, an angle of an imaging system corresponding to each image, a

distance between an X-ray source and an X-ray detector image-receiving surface, and a detector size.

Claim 4 (Previously Presented): The apparatus according to claim 1, wherein when areas of interest are designated on at least two images, said position estimating section obtains a 3D position of a diagnosis target on the basis of straight lines connecting focal positions of an X-ray source in sensing the respective images on which the areas of interest are designated and the areas of interest, and projects the 3D position onto the remaining images of the plurality of images, thereby estimating the respective corresponding areas.

Claim 5 (Previously Presented): The apparatus according to claim 1, wherein when areas of interest are designated on at least two images, said position estimating section calculates a locus of the areas of interest in the image by using a function on the basis of the respective designated areas of interest, and obtains the corresponding areas on the remaining images on the basis of the locus.

Claim 6 (Previously Presented): The apparatus according to claim 5, wherein said position estimating section includes an interface which switches the function by manual operation.

Claim 7 (Original): The apparatus according to claim 5, wherein said position estimating section selects a function to be used in accordance with the number of areas of interest designated by an operator.

Claim 8 (Previously Presented): The apparatus according to claim 1, wherein said position estimation section performs correlation value computation associated with pixel values in the region of interest between at least two adjacent images of the plurality of images, and obtains the corresponding areas on the respective remaining images on the basis of the correlation values.

Claim 9 (Previously Presented): The apparatus according to claim 1, further comprising display range adjusting section which adjusts a display range of an image, after the transformation by said transformation section, by using a shutter having a predetermined shape.

Claim 10 (Original): The apparatus according to claim 9, wherein the predetermined shape can be set to an arbitrary shape.

Claim 11 (Previously Presented): An X-ray diagnostic apparatus comprising:

a memory which stores a plurality of 2D images acquired in a plurality of projection directions and which constitute a 3D image of a predetermined diagnosis target;

a designating section which allows an operator to designate a region of interest on the 3D image;

a position estimating section which estimates corresponding areas in each projection direction and which correspond in each projection direction to the region of interest designated on the 3D image, on the plurality of 2D images;

a transformation section which transforms the plurality of 2D images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which after transformation by said transformation section sequentially displays the transformed images with display positions thereof adjusted such that an operator is free from moving an eyepoint to observe the transformed images.

Claim 12 (Original): The apparatus according to claim 11, wherein the plurality of 2D images are images acquired by rotation around an object to be examined.

Claim 13 (Original): The apparatus according to claim 11, wherein each of the corresponding areas on the plurality of 2D images is determined on the basis of at least one of the designated region of interest, an angle of an imaging system corresponding to each image, a distance between an X-ray source and an X-ray detector image-receiving surface, and a detector size.

Claim 14 (Previously Presented): The apparatus according to claim 11, further comprising display range adjusting section which adjusts a display range of a 2D image, after the transformation by said transformation section, by using a shutter having a predetermined shape.

Claim 15 (Previously Presented): The apparatus according to claim 14, wherein the predetermined shape can be set to an arbitrary shape.

Claim 16 (Previously Presented): An image processor comprising:

a memory which stores a plurality of images acquired in a plurality of projection directions;

a designating section which allows an operator to designate a region of interest on at least one of the plurality of images acquired in a predetermined projection direction;

a position estimating section which estimates corresponding areas in each projection direction on the remaining images of the plurality of images on the basis of a position of the designated region of interest in each projection direction;

a transformation section which transforms the plurality of images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which after transformation by said transformation section sequentially displays the transformed images with display positions thereof adjusted such that an operator is free from moving an eyepoint to observe the transformed images.

Claim 17 (Original): The processor according to claim 16, wherein the plurality of images are images acquired by rotation around an object to be examined.

Claim 18 (Previously Presented): The processor according to claim 16, wherein said position estimating section calculates a locus of the region of interest on the image by using a function on the basis of the designated region of interest, and obtains the corresponding areas on the remaining image on the basis of the locus.

Claim 19 (Original): The processor according to claim 18, wherein said position estimating section includes an interface which switches the function by manual operation.

Claim 20 (Original): The processor according to claim 18, wherein said position estimating section selects a function to be used in accordance with the number of areas of interest designated by the operator.

Claim 21 (Currently Amended): The processor according to claim 16, wherein said position estimation section performs correlation value computation associated with pixel values in the region of interest between at least two adjacent images of the plurality of ~~X-ray diagnostic~~ images, and obtains the corresponding areas on the respective remaining images on the basis of the correlation values.

Claim 22 (Previously Presented): The processor according to claim 16, further comprising a display range adjusting filter which adjusts a display range of an image, after the transformation by said transformation section, by using a shutter having a predetermined shape.

Claim 23 (Original): The processor according to claim 22, wherein the predetermined shape can be set to an arbitrary shape.

Claim 24 (Previously Presented): An image processor comprising:

a memory which stores a plurality of 2D images acquired in a plurality of projection directions and which constitute a 3D image of a predetermined diagnosis target;

a designating section which allows an operator to designate a region of interest on the 3D image;

a position estimating section which estimates corresponding areas in each projection direction and which correspond in each projection direction to the region of interest designated on the 3D image, on the plurality of 2D images

a transformation section which transforms the plurality of 2D images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which after transformation by said transformation section sequentially displays the transformed images with display positions thereof adjusted such that an operator is free from moving an eyepoint to observe the transformed images.

Claim 25 (Original): The processor according to claim 24, wherein the plurality of 2D images are images acquired by rotation around an object to be examined.

Claim 26 (Original): The processor according to claim 24, wherein each of the corresponding areas on the plurality of 2D images is determined on the basis of at least one of the designated region of interest, an angle of an imaging system corresponding to each image, a distance between an X-ray source and an X-ray detector image-receiving surface, and a detector size.

Claim 27 (Previously Presented): The processor according to claim 24, further comprising display range adjusting means for adjusting a display range of a 2D image, after the transformation by said transformation section, by using a shutter having a predetermined shape.

Claim 28 (Original): The processor according to claim 27, wherein the predetermined shape can be set to an arbitrary shape.

Claim 29 (Previously Presented): An X-ray diagnostic apparatus comprising:

a memory which stores a plurality of images acquired in a plurality of projection directions;

a designating section which designates a region of interest on a first image acquired in a first predetermined projection direction of the plurality of images on the basis of an input from an operator;

a position estimating section which estimates a corresponding area, which corresponds to the region of interest, on a second image acquired in a second predetermined projection direction of the plurality of images;

a transformation section which transforms at least one of the first and second images so as to locate the region of interest and the respective corresponding area at substantially a same display position; and

a display section which after transformation by said transformation section sequentially displays the first image and the second image with display positions thereof adjusted such that an operator is free from moving an eyepoint to observe the first and second images.

Claim 30 (Previously Presented): The X-ray diagnostic apparatus of Claims 29, wherein:

said position estimating section estimates corresponding areas, corresponding to the region of interest, on plural of the plurality of images stored in the memory;

said transformation section transforms at least one of the first image and the plural images for which corresponding areas are estimated so as to locate the region of interests and the respective corresponding areas at substantially the same display position; and

said display section after transformation by said transformation section displays the first image and the plural images with the region of interest of the first image and the corresponding areas of the plural images at the substantially same display position.

Claim 31 (Previously Presented): An X-ray diagnostic apparatus comprising:

a memory which stores a plurality of images acquired in a plurality of projection directions;

a designating section which designates a region of interest on at least one of the plurality of images acquired in a predetermined projection direction on the basis of an input from an operator;

a position estimating section which estimates corresponding areas in each projection direction, which correspond to the region of interest in each projection direction, on the remaining images of the plurality of images;

a transformation section which transforms the plurality of images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which sequentially displays the transformed images with display position thereof adjusted so that an operator is free from moving an eyepoint to observe the transformed images.

Claim 32 (Previously Presented): An X-ray diagnostic apparatus comprising:

a memory which stores a plurality of 2D images acquired in a plurality of projection directions and which constitutes a 3D image of the predetermined diagnosis target;

a designating section which allows an operator to designate a region of interest on the 3D image;

a position estimating section which estimates corresponding areas in each projection direction and which correspond to the region of interest designated on the 3D image, on the plurality of 2D images;

a transformation section which transforms the plurality of 2D images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which sequentially displays the transformed images with display positions thereof adjusted so that an operator is free from moving an eyepoint to observe the transformed images.

Claim 33 (Previously Presented): An image processor comprising:

a memory which stores a plurality of images acquired in a plurality of projection directions;

a designating section which allows an operator to designate a region of interest on at least one of the plurality of images acquired in a predetermined projection direction;

a position estimating section which estimates corresponding areas in each projection direction on the remaining images of the plurality of images on the basis of a position of the designated region of interest in each projection direction:

a transformation section which transforms the plurality of images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which sequentially displays the transformed images with the display positions thereof adjusted so that an operator is free from moving an an eyepoint to observe the transformed images.

Claim 34 (Previously Presented): An image processor comprising:

a memory which stores a plurality of 2D images acquired in a plurality of projection directions and which constitutes a 3D image of the predetermined diagnosis target;

a designating section which allows an operator to designate a region of interest on the 3D image;

a position estimating section which estimates corresponding areas in each projection direction and which correspond to the region of interest in each projection direction designated on the 3D image, on the plurality of 2D images;

a transformation section which transforms the plurality of 2D images so as to locate the region of interest and the respective corresponding areas at substantially a same display position; and

a display section which sequentially displays the transformed images with display positions thereof adjusted so that an operator is free from moving an eyepoint to observe the transformed images.

Claim 35 (Previously Presented): An X-ray diagnostic apparatus comprising:

a memory which stores a plurality of images acquired in a plurality of projection directions;

a designating section which designates a region of interest on a first image of the plurality of images acquired in a predetermined projection direction on the basis of an input from an operator;

a position estimating section which estimates in a second projection direction a corresponding area, which corresponds to the region of interest, on a second image of the plurality of images;

a transformation section which transforms at least one of the first and second images so as to locate the region of interest and the respective corresponding area at substantially a same display position; and

a display section which sequentially displays the transformed images with display positions thereof adjusted so that an operator is free from moving an eyepoint to observe the transformed images.

Claim 36 (Previously Presented): The X-ray diagnostic apparatus of claim 1, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 37 (Previously Presented): The X-ray diagnostic apparatus of claim 11, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images,

and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 38 (Previously Presented): The image processor of claim 16, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 39 (Previously Presented): The image processor of claim 24, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 40 (Previously Presented): The X-ray diagnostic apparatus of claim 29, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 41 (Previously Presented): The X-ray diagnostic apparatus of claim 31, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 42 (Previously Presented): The image processor of claim 32, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 43 (Previously Presented): The image processor of claim 33, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 44 (Previously Presented): The image processor of claim 34, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images,

and transforms the plurality of images based on the calculated amount of movement in each image.

Claim 45 (Previously Presented): The X-ray diagnostic apparatus of claim 35, further comprising:

wherein the transformation section calculates an amount of movement in each image based on an angle of rotation of an image pickup system for acquiring the plurality of images, and transforms the plurality of images based on the calculated amount of movement in each image.